

Notice of Allowability

Application No.

10/000,413

Examiner

Sheela C. Chawan

Applicant(s)

BACHELDER, IVAN

Art Unit

2625

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 8/8/05.
2. ☒ The allowed claim(s) is/are 3-7, 11-14, 16-18, Renumbered as 1- 12.
3. ☒ The drawings filed on 13 December 2004 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892) 7/31/01, 5/20/05
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date 12/3/04
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material

5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☒ Interview Summary (PTO-413),
Paper No./Mail Date 8/19/05.
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.



Examiner's Amendments

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mr. Arthur J. O'Dea Registration No. 42,952 on 8/19/05.

The application has been amended as follows:

Replace claim 7 see the attached sheet (currently amended) claim 7.

Cancel claim 8.

7. (currently amended) A method of gauging entities in an image comprising the steps of:
- constructing a model data structure;
 - identifying a set of gauge entities in said model;
 - automatically configuring sub-models according to the stability of features in said sub-models for computing position of each of said gauge entities;
 - locating said sub-models in said image;
 - computing positions of each of said gauge entities by reference to locations of located sub-models by interpolation with reference to said located sub-models; and
 - determining the spatial relationship between said gauge entities.

8. (cancelled)

DETAILED ACTION

Response to Amendment

2. Applicant's amendment filed on 8/8/05 has been entered.

With this amendment, claims 1, 2, 8-10,15 are canceled.

Claims 3 - 7, 11- 14, 16-18 are pending in the application.

Applicant has amended the independent claims 3, 7,11 and 16 by incorporating the allowable subject matter as set forth in paragraph 5 of the last Office Action mailed on 5/31/05. Therefore, the claims rejection under 102(e) has been withdrawn.

Drawings

3. The Examiner has approved drawings filed on 12/13/04.

Information Disclosure Statement

4. The information disclosure statement (IDS) submitted on 12/3/04 has been considered by the examiner.

Reason For Allowance

5. The following is an examiner's statement of reasons for allowance:

Claims 3 – 7, 11-14, and 16 - 18 are allowed.

The present invention is directed to a method of gauging entities in an image. Claim 3, recites a method of gauging entities in an image identifies the uniquely distinct features comprising the steps of: automatically configuring sub-models according to the stability of features in said sub-models for computing position of each of said gauge entities by: defining a set of regions for each gauge entity; assessing each region for stable

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reference features; selecting a best region for each gauge entity; and training a sub-model representing each feature that exceeds a predetermined stability threshold with each of said best regions; locating said sub-models in said image; computing position of each of said gauge entities by reference to location of located sub-models; and determining the spatial relationship between said gauge entities. The closest prior art, listed as Sarachik discloses a method for measuring distance between locations in an image using sub-models to perform gauging since the user must specify the sub-models pairs that are used for gauging the measurement (i.e., the sub models are the gauge entities) .The prior art of record fails to anticipate or render the above limitations obvious. Therefore, it is for this reason and in combination with all other limitations in the claims, that claims 3 - 6, are allowable over the prior art of record.

Claim 11 is representative of claim 3.

Claim 7, recites a method of gauging entities in an image identifies the uniquely distinct features comprising the steps of: automatically configuration sub-models according to the stability of features in said sub-models for computing position of each of said gauge entities, locating said sub-models in said image; computing position of each of said gauge entities by reference to location of located sub-models by interpolation with reference to said located sub-models; and determining the spatial relationship between said gauge entities. Therefore, it is for this reason and in combination with all other limitations in the claims that claim 7 is allowable over the prior art of record.

Claim 16, recites an apparatus for gauging entities in an image identifies the uniquely distinct features comprising: automatically configuration sub-models according to the stability of features in said sub-models for computing position of each of said gauge entities, by; defining a set of regions for each gauge entity; segmenting each region into contiguous portions containing features; mathematically assessing the stability of each portion; and assessing the stability of each region according to the stability of portions within its respective region that exceeds a predetermined stability threshold; locating sub-models in said image; and computing position of each of said gauge entities by reference to locations of located sub-models. Therefore, it is for this reason and in combination with all other limitations in the claims, that claims 16-18 are allowable over the prior art of record.


7. Any comments considered necessary by applicant must be submitted on later than the payment of the issue fee and to avoid processing delays should preferably accompany the issue fee. Such submissions should be clearly labeled, comments on statement of reasons for allowance.

Contact Information

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sheela C Chawan whose telephone number is. 571-272-7446. The examiner can normally be reached on Monday - Friday 7.30 - 4.00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bhavesh Mehta can be reached on 571-272-7453. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

✓ 
Sheela Chawan
Patent Examiner
Group Art Unit 2625
August 19, 2005